DOCUMENT RESUME

ED 460 784 PS 030 087

TITLE	Classroom Breakfast Scores High in Maryland: Findings from Year III of the Maryland Meals for Achievement Classroom Breakfast Pilot Program.
INSTITUTION	Maryland State Dept. of Education, Baltimore.
PUB DATE	2001-12-00
NOTE	8p.; Findings cited from J. M. Murphy, et al., "Maryland Meals for Achievement Year III Final Report," October 2001. For earlier report on Classroom Breakfast see ED 446 818.
AVAILABLE FROM	Maryland State Department of Education, Nutrition and Transportation Services Branch, 200 West Baltimore Street, Baltimore, MD 21201. Tel: 410-767-0199; e-mail: kkerry@msde.state.md.us.
PUB TYPE	Information Analyses (070) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Academic Achievement; *Breakfast Programs; Elementary Secondary Education; Program Descriptions; *Program Effectiveness; Program Evaluation; *State Programs; Student Improvement
IDENTIFIERS	*Maryland

ABSTRACT

In fall 1998, the Maryland State Department of Education and six schools began a pilot program to evaluate the impact of serving breakfast to students in the classroom as part of the school day. Students in participating schools have an opportunity to eat breakfast in their classroom each day at no charge, regardless of family income. The program, called Maryland Meals for Achievement (MMFA), has expanded to more than 90 participating schools for the 2001-2002 school year. Researchers from Massachusetts General Hospital and Harvard Medical School continue to evaluate the program's effectiveness and have found the following: (1) tardiness declines; (2) suspensions decrease; (3) results of the Maryland School Performance Assessment Program (MSPAP) improved significantly more in MMFA schools than in a matched group of comparison schools; and (4) improved student performance in individual subject areas, although not statistically significant. Staff of MMFA schools also report the following positive changes: (1) improved learning environment; (2) improved student behavior; (3) improved student attentiveness; and (4) continued improvement each year of participation. (Includes parental response to the program, summary of the classroom component of the program, description of the diverse group of children served, sample menu items, funding sources for the program, and a summary of related research.) (SD)

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Classroom Breakfast Scores High in Maryland

Findings from Year III of the Maryland Meals for Achievement Classroom Breakfast Pilot Program
December 2001

Thousands of Maryland school children have a new tool to help them do their best work at school each day – a healthy breakfast, served right in their classroom.

Schools that participate in the Maryland Meals for Achievement (MMFA) classroom breakfast pilot program offer breakfast to every student every morning at no charge, regardless of family income. Students eat at their desks while teachers take attendance and do other morning activities. The program started in 1998 with only six schools. By the start of the 2001-2002 school year, more than 90 schools were participating.

This innovative program continues to earn high scores from Massachusetts General Hospital and Harvard Medical School researchers. Here's a look at their most recent findings[1].

Tardiness Declines

Researchers report an 8% decline in tardiness in MMFA schools during the first three full months of the school year.

Suspensions Decrease

Suspensions were down from an average of 4.4 days per month to 2.8 per month in MMFA schools three months after the start of classroom breakfast. That's a decrease of 1.6 days per month per school.

Impact on Academics

Researchers report that Maryland School Performance Assessment Program (MSPAP) Composite Index scores (a score that averages all students across all grades and all subjects) improved significantly more in MMFA schools than in a matched group of comparison schools from the same school systems. MMFA schools saw a five-point increase in the percentage of students who scored at or above the satisfactory level. Meanwhile, comparison schools had a slight, but not significant, decline in the number of students scoring at or above the satisfactory level.

Researchers noted similar trends when they examined individual student performance in individual subject areas, although these findings did not reach statistical significance.

It is important to note that the sample size for this measurement was small. When researchers have an opportunity to evaluate data from a larger group of schools, the impact of MMFA on academics may become even more clear.

Investment in Good Nutrition Pays Off Now and Later

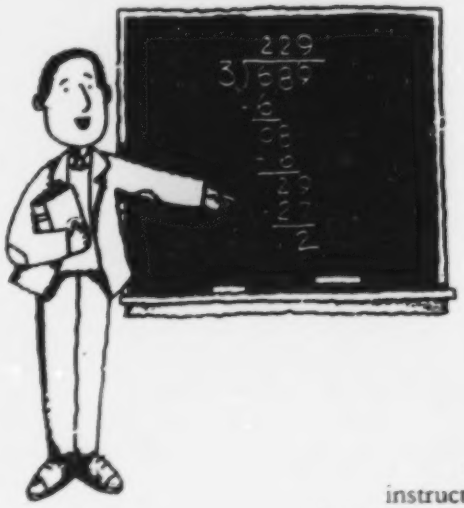
As researchers continue to point to the link between good nutrition and education, it becomes clear that in the short-term, MMFA schools can expect to see improved academic performance and behavior in participating schools. Looking ahead, students who routinely start their day with a good breakfast will learn healthy eating habits that will serve them for a lifetime. This long-term benefit cannot be understated during a time when childhood obesity and inactivity are at alarmingly high rates in our country.

Maryland State Department of EDUCATION

[1]All findings cited from J. M. Murphy et al., Maryland Meals for Achievement Year III Final Report, October 2001.

Staff Report Positive Changes

Some of the most compelling information about MMFA comes from the people who see it in action each day. Teachers, principals, nurses, and guidance counselors all report positive changes following the start of classroom breakfast in their schools.



Learning Environment

More than eight out of ten school staff members surveyed reported that the school learning environment had improved as a result of MMFA.

Student Behavior

Staff also believe the program helps to improve student behavior. Seventy-two percent of the staff members surveyed in first-year MMFA schools said they felt student behavior improved following the start of classroom breakfast.

Student Attentiveness

Seventy-three percent of staff surveyed in first-year MMFA schools reported an improvement in student attentiveness following the start of the program.

Benefits Aren't Only for First-Year Schools

Researchers noted that staff continued to report improvements in learning environment, behavior, and attentiveness during the second and third years of the program. For example, schools that have had MMFA the longest have the highest percentage of staff reporting a positive change in learning environment. This feedback suggests that the benefits of classroom breakfast persist and, in some cases, increase over time.

When asked about the future of MMFA, 91% of staff surveyed said the program should continue in their school. The highest approval ratings came from the schools that have had the program the longest. Among these schools, 94% of staff reported that the program should continue.

One teacher reported that MMFA gives her a chance to assess the class before instruction begins. "It is a time to interact with the kids and to really know what is going on at home. It gives you a chance, if you had a problem with a child the day before to get him/her set on the right track for that day."

Another teacher who had been worried about the additional responsibilities said that MMFA is definitely worth the effort.

> **"I would be upset now if they took the breakfast program away."**
> **-- teacher**

"I felt I had enough to do with preparing for teaching that to have breakfast in my classroom would just be extra work and a big mess," the teacher explained. "But I found that I barely have to do any work at all, and the kids are so much better behaved that my lessons go much smoother. I would want to tell other teachers that it may seem like a

hassle, but it really is minimal work with a lot of positive payoffs....I would be upset now if they took the breakfast program away."

One principal describes the program this way:

> **"It lets them concentrate and learn."**
>
> **-- principal**

"The classroom breakfast program has given my children...three things: one – it gets my babies to school on time, two – it puts food into their tummies, and three – it lets them concentrate and learn."

Another principal reported just after the start of the program that MMFA has "greatly enhanced the educational environment" in her school. She credited MMFA with improving attendance, decreasing tardiness and discipline referrals, and helping students to be more alert.

Program Also Earns High Marks from Parents and Students

Parents

Ninety-nine percent of parents who responded to the survey said the program had helped their family. When asked what kind of impact the program has had, frequent responses included providing a good start to the day for children, improved attention and learning among students, and relief to parents' worries about children getting breakfast. Nearly one in four parents reported that MMFA makes mornings easier at home.

Students

Does MMFA make the grade with students? Absolutely. Of more than 1,000 students surveyed, 81% said they like classroom breakfast.

When asked what difference MMFA makes in their school, the most common responses are that classroom breakfast provides an opportunity for everyone to eat and that fewer students are hungry. Some students mention that they enjoy the opportunity to eat with their friends and get to know their teachers better.

One third-grader said she likes the program because she doesn't have to rush around at home trying to squeeze in breakfast. "Having breakfast at school every days helps me because I won't have to be hungry during language arts," she explained.

More Students Eat

Schools that participate in MMFA see a dramatic increase in the number of students who eat breakfast at school. The statewide average daily participation for School Breakfast is about 11%. That means about one in ten students makes the trip to the cafeteria for breakfast. These students may or may not pay for their meals, depending on their eligibility for free or reduced-price meals. In MMFA schools, participation averages 72% and some schools see participation soar as high as 90%.

The Classroom Component Is Critical

One reason more students eat is because they don't have to pay for their meal. But it's certainly not the only reason. In fact, researchers suggest that the classroom component is what makes this program so successful. In fact, related research in Baltimore City showed only a modest 5% increase in the school breakfast participation rate for schools that offered breakfast at no charge in the cafeteria. The Baltimore City schools that offered breakfast at no charge in the classroom saw participation triple.

Why? Lots of reasons. When students eat at their desks, they don't have to juggle coats, book bags, and a cafeteria tray. They don't have to rush through their meal to get back to homeroom. Instead, they have an opportunity to sit quietly at their desks, talk with their teacher and classmates, and get ready for the morning's lessons.

"Having breakfast at school every day helps me because I won't have to be hungry during language arts."
-- student

What's on the Menu

Each school serves meals that meet U.S. Department of Agriculture nutrition standards consistent with the Dietary Guidelines for Americans and Recommended Dietary Allowances for children. Menus vary from school to school, but generally include milk, juice or fruit, and an entrée such as a muffin, bagel, cereal, French toast sticks, or breakfast sandwich. Many schools offer a hot entrée at least occasionally.

MMFA Serves a Diverse Group of Children

Students from 15 school systems across Maryland participated in MMFA during the 2000-2001 school year. These students represent a mix of cultures and economic backgrounds. Some live in rural areas, while others live in or near cities. By law, schools must have at least 40% of their enrolled students eligible for free or reduced-price meals. Free and reduced-price eligibility of MMFA schools ranges from just over 40% to nearly 100%.

Paying the Bill

State lawmakers provided $964,000 to fund MMFA for the 2000-2001 school year. The State appropriated nearly $2 million for the 2001-2002 school year, to provide for the program in more than 90 schools statewide. MMFA funds supplement federal and state funds provided under the traditional School Breakfast Program. Because MMFA funds are meant to cover the cost of providing a free meal to students who would normally pay something to eat School Breakfast, MMFA schools must participate in the School Breakfast Program.

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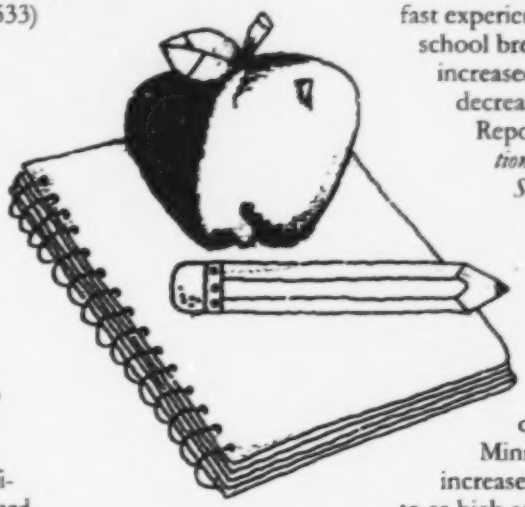
Related Research

Researchers continue to evaluate MMFA. Their findings will add to the growing body of evidence supporting the link between good nutrition and peak classroom performance.

- In 1981, Dr. Ernesto Pollitt determined in laboratory settings that students who did not eat breakfast could not complete simple tests as effectively as those who had. (Pollitt, E., Leibel, R.L., and Greenfield, D., *Brief Fasting, Stress, and Cognition in Children.* The American Journal of Clinical Nutrition, vol. 34, pp 1526-1533)

- In 1987, Meyers, Sampson, et. al. examined the effect of the School Breakfast Program on school performance of low-income elementary school children in Massachusetts. Students who participated in the School Breakfast Program had significantly higher standardized test scores in reading and math and were absent and tardy less often. (Meyers, A. F. et al., 1989. *School Breakfast and School Performance.* American Journal of Diseases of Children, 143:1234-1239)



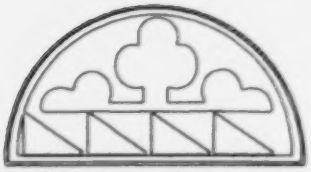
- A study done in Israel found that children who eat breakfast closer to class and test-taking time perform better on standardized tests than those who ate breakfast at home. (Vaisman, N. et al., 1996. *Effects of Breakfast Timing on the Cognitive Functions of Elementary School Students*, Archives of Pediatric and Adolescent Medicine, 150, 1089-1092)

- In 1998, Murphy and his colleagues reported on a study of 133 elementary students from Baltimore and Philadelphia whose schools had started universally free school breakfast programs. Students who increased their breakfast participation showed significantly improved math grades, decreased absences and tardiness, and decreased behavioral and psychological problems. (Murphy, et al, *The Relationship of School Breakfast to Psychosocial and Academic Functioning.* Archives of Pediatric and Adolescent Medicine, 152 889-907)

- A study conducted in Baltimore City found that schools offering classroom breakfast experienced dramatic increases in school breakfast participation, increased school attendance, and decreased tardiness. (The Abell Report, *Data From Abell Foundation Project Concludes: Changes in Student Breakfast Program will Increase Participation, Improve Performance*, February/March 1998, vol. 11, no. 1)

- A three-year study of universal classroom breakfast in Minnesota resulted in an increase in participation from 12% to as high as 93%. Teachers reported increased student attention and fewer complaints about headaches and hunger. Administrators reported that school breakfast played a major role in the 40-50% decline in discipline issues. Researchers also noted a general increase in composite math and reading percentile scores. (Minnesota Universal Breakfast Pilot Study, Final Report, Minnesota Department of Children, Families and Learning, 1997)

- The U.S. Department of Agriculture is providing free breakfast to students in six school districts across the country as part of a federal study of the link between a nutritious breakfast and learning.



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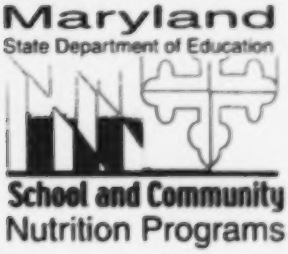

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The Maryland Meals for Achievement planning team includes representatives from the Abell Foundation, the Center for Poverty Solutions, Inc., the Maryland State Department of Education, Baltimore City Public Schools, and school systems in Baltimore, Harford, Howard, Montgomery, Prince George's, and Washington counties.

For more information about Maryland Meals for Achievement, contact the Maryland State Department of Education, Nutrition and Transportation Services Branch, 200 West Baltimore Street, Baltimore, MD 21201; kkerry@msde.state.md.us; or 410-767-0199, TTY/TDD 410-333-6442.

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